

IN THE SPECIFICATION:

Please substitute the following paragraph for the paragraph starting at page 3, line 21 and ending at page 4, line 6. A marked-up copy of this paragraph, showing the changes made thereto is attached.

Q' --Moreover, there is also a method of directly detecting the used amount of the photosensitive drum from a lowered charged potential of the drum or a reduced latent image contrast by using a surface potential sensor or the like. In this case, however, the surface potential sensor and an electric circuit for processing its output are required, and so the costs become high. In addition, as only the information on the photosensitive drum corresponding to the sensor's position is acquired, there is a possibility of detecting a partial defect, not necessarily capable of acquiring the information along the whole length of the drum.--

Please substitute the following paragraph for the paragraph starting at page 11, line 26 and ending at page 12, line 1. A marked-up copy of this paragraph, showing the changes made thereto is attached.

--Fig. 1 is a sectional view showing an embodiment of a process cartridge involved in the present invention;--

A2 [Please substitute the following paragraph for the paragraph starting at page 12, line 2 and ending at page 12, line 4. A marked-up copy of this paragraph, showing the changes made thereto is attached.]

--Fig. 2 is a sectional view showing an embodiment of an image forming apparatus involved in the present invention;--

Please substitute the following paragraph for the paragraph starting at page 12, line 11 and ending at line 12. A marked-up copy of this paragraph, showing the changes made thereto is attached.

A3

--Fig. 5 is a block diagram showing the configuration of memory control involved in the present invention;--

Please substitute the following paragraph for the paragraph starting at page 12, line 24 and ending at line 26. A marked-up copy of this paragraph, showing the changes made thereto is attached.

A4

--Fig. 9 is a sectional view showing an embodiment of a developing apparatus rendered as a cartridge involved in the present invention; and--

Please substitute the following paragraph for the paragraph starting at page 14, line 13 and ending at line 27. A marked-up copy of this paragraph, showing the changes made thereto is attached.

A5

--The charging roller 2 is a conductive elastic body formed on a core surface, where both ends of the core are kept freely rotatable, and is pressure-welded to an outer face of the photosensitive drum 1 by predetermined pressure so as to rotate according to rotation of the photosensitive drum 1. The charging roller 2 undergoes, via the core from a high voltage power supply provided in the image forming apparatus main body, application of a superimposed voltage ($V_{ac} + V_{dc}$) of an AC component V_{ac} and a DC component V_{dc} having an inter-peak voltage V_{pp} that is twice or more of a charge start voltage, and the outer face of the photosensitive drum 1, being rotated, uniformly undergoes a contact charging process by an AC application method.--

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Please substitute the following paragraph for the paragraph starting at page 15, line 18 and ending at page 16, line 9. A marked-up copy of this paragraph, showing the changes made thereto is attached.

A6
--Negative charged magnetic one-component toner is used as the toner t accommodated in the toner container 4a. As for the components, a magnetic body grain 80 parts by weight for a styrene n-butyl-acrylate copolymer 100 parts by weight as a binding resin, two parts of a load current controlling agent of a mono-azo iron complex, and three parts of low molecular weight polypropylene as wax are melted and mixed by a two-axis extruder heated to 140 degrees C, and the cooled mixture is roughly decomposed by a hammer mill, and then the roughly ground matter is pulverized by a jet mill so that the acquired pulverized matter is air classified to acquire classified powder whose weight average diameter is $5.0\ \mu\text{m}$. The classified article whose average grain size is $5.0\ \mu\text{m}$ is mixed with a hydrophobic silica powder 1.0 weight portion by a henschel mixer so as to acquire a developer. And those having a weight average grain size in the range of 3.5 to $7.0\ \mu\text{m}$ (mainly $6\ \mu\text{m}$ or so) are used.--

Please substitute the following paragraph for the paragraph starting at page 21, line 11 and ending at line 25. A marked-up copy of this paragraph, showing the changes made thereto is attached.

A7
--Fig. 3 shows the relationship between the durable number of sheets, that is, the number of printed sheets and the light portion potential, that is, an exposed portion potential of the photosensitive drum whose photosensitive materials are different between manufacturing lots A and B. As is understandable from the drawing, the light portion potential gradually decreases as the number of printed sheets increases in the photosensitive drum of the manufacturing lot A, whereas the potential remarkably decreases at the beginning of printing and there is little change from the middle of the

A7
(cont'd)

printing operation and thereafter in the drum of the manufacturing lot B. Such variation in the light portion potential due to the use of the photosensitive drum creates a variation in the image.--

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Please substitute the following paragraph for the paragraph starting at page 22, line 5 and ending at line 7. A marked-up copy of this paragraph, showing the changes made thereto is attached.

A8

--(1) The cartridge C is equipped with the memory 22 and stores the time during which the cartridge C was driven in the image forming apparatus main body.--

✓
Please substitute the following paragraph for the paragraph starting at page 22, line 8 and ending at line 15. A marked-up copy of this paragraph, showing the changes made thereto is attached.

--(2) The memory 22 stores threshold information on the above used amount determined by the characteristics of the photosensitive materials of the photosensitive drum 1 used on each cartridge and coefficient information on an arithmetic expression determined by contact pressure of the photosensitive drum 1 and the cleaning blade 10 and the electrical characteristic of the charging roller 2.--

✓
Please substitute the following paragraph for the paragraph starting at page 22, line 16 and ending at line 26. A marked-up copy of this paragraph, showing the changes made thereto is attached.

--(3) In the image forming apparatus main body, the used amount of the cartridge C with the driving time and the coefficient information stored in the memory 22 of the cartridge C are calculated, and the calculated value is compared to the threshold information on the used amount of the photosensitive drum in the memory 22 of the

AB
(Contd)

cartridge. And the amount of exposure to light is changed when the calculated value becomes the threshold value. Moreover, a table corresponding to the threshold and the amount of exposure to light should be created and stored in the memory 22.--

Please substitute the following paragraph for the paragraph starting at page 24, line 12 and ending at page 25, line 1. A marked-up copy of this paragraph, showing the changes made thereto is attached.

09

--A drum used amount D is calculated in the computing portion 26 by a conversion expression $D = A + B \times \phi$ using a value B integrating photosensitive drum rotation time data from the photosensitive body rotation instructing portion 27, a value A integrating charging bias application time data from the charging bias application time detecting portion 28, and the weighting coefficient ϕ read from the memory 22, and is stored in the apparatus main body memory 13 for storing apparatus main body data. The drum used amount D that is integrated and stored is compared to the threshold α in the memory 22 of the cartridge C by the computing portion 26. As a result of the comparison, when the drum used amount D becomes larger than the threshold α , a control signal is sent from the control portion 25 to a laser exposure unit 3 so as to change the amount of exposure to light by the laser.--

✓

Please substitute the following paragraph for the paragraph starting at page 26, line 13 and ending at line 17. A marked-up copy of this paragraph, showing the changes made thereto is attached.

Q10 --S111: A switching signal is transmitted from the control portion 25 to a laser exposure unit 3 shown in Fig. 5 so that the amount of exposure to light is changed.

<End>--

IN THE ABSTRACT:

✓ Please substitute the following Abstract for the Abstract starting at page 38, line 1 and ending at line 21. A marked-up copy of this paragraph, showing the changes made thereto is attached.

--ABSTRACT OF THE DISCLOSURE

Q11 An image forming apparatus has a cartridge detachably mounted thereon, having unitized as one piece, one or more of a photosensitive body on which an electrostatic latent image is formed, a charging device for charging the photosensitive body, and a developing device for developing the electrostatic latent image formed on the photosensitive body and including a storage medium capable of storing electronic information, an exposing device for exposing the photosensitive body, and a device for detecting a used amount of the cartridge. The storage medium has information stored in advance for determining an exposure condition specific to each cartridge and has an area for writing used amount information of the cartridge detected by the detecting device, and performs control for changing the exposure condition of the photosensitive body based on the information for determining the exposure conditions and the used amount information.--

IN THE CLAIMS:

✓ Please cancel Claims 4, 9, 14, and 19 without prejudice to or disclaimer of the subject matter recited therein.

Please amend Claims 1-3, 5-8, 10-13, 15-18, and 20 as follows. A marked-up copy of Claims 1-3, 5-8, 10-13, 15-18, and 20 showing the changes made thereto, is attached.